

3. Mississippi Department of Mental Health Comprehensive Community Mental Health Centers

The Department of Mental Health is governed by the Mississippi State Board of Mental Health, whose nine members are appointed by the Governor of Mississippi and confirmed by the State Senate. Members' terms are staggered to ensure continuity of quality care and professional oversight of services. By statute, the nine-member board is composed of a physician, a psychiatrist, a clinical psychologist, a social worker with experience in the field of mental health, and one citizen representative from each of Mississippi's congressional districts as they existed in 1974.

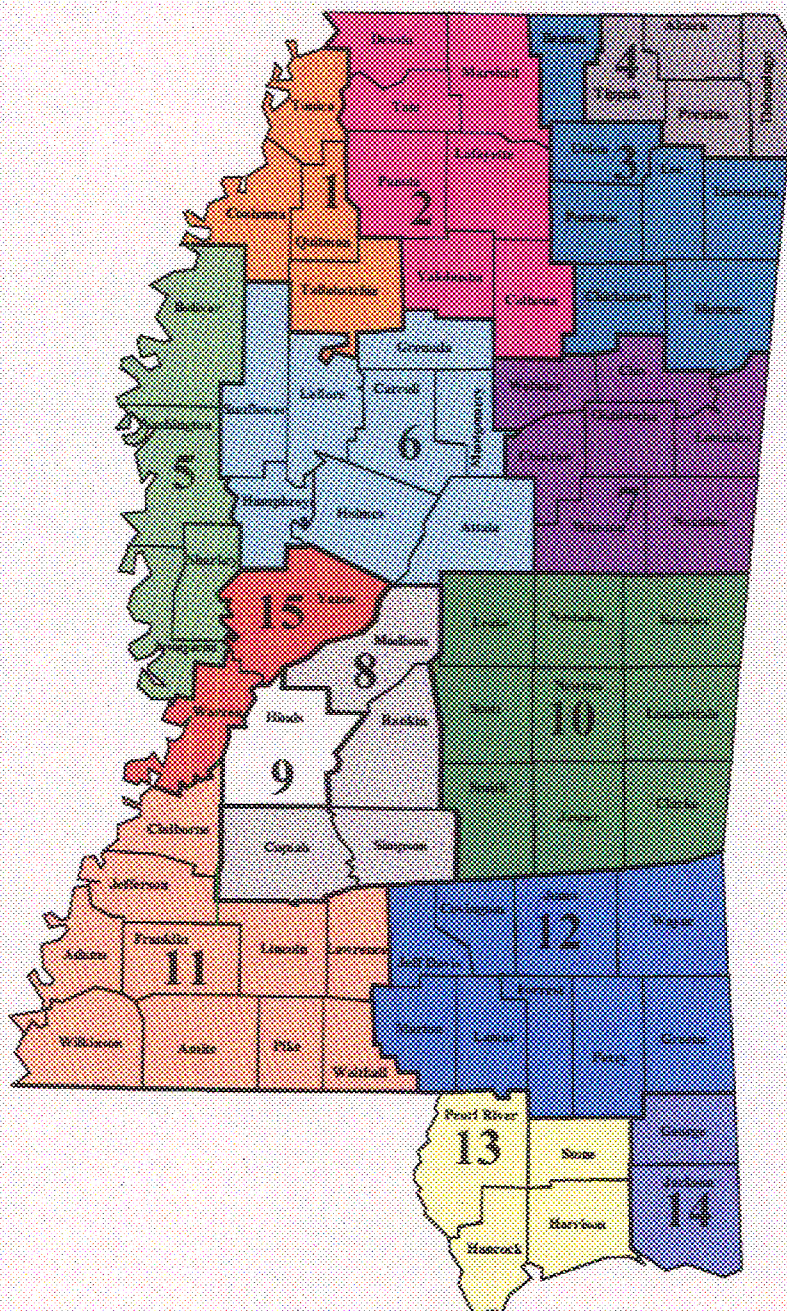
Since its inception in 1974, the MS Department of Mental Health has endeavored to provide services of the highest quality through a statewide service delivery system. As one of the major state agencies in Mississippi, the DMH provides services to persons who experience problems with mental illness, alcohol and/or drug abuse/dependence, or who have mental retardation or developmental disabilities. Services are provided through an array of facilities and agencies operated and/or funded by the DMH. The Department of Mental Health is organized into three bureaus: the Bureau of Administration, the Bureau of Mental Health and the Bureau of Mental Retardation. Bureau Chiefs report directly to the Executive Director of the Department.

The Central Office of the Department of Mental Health is located at the Robert E. Lee Building in downtown Jackson, Mississippi. Although the Department of Mental Health employs approximately 9000 personnel throughout the state, the Central Office is only comprised of about 90 employees, reflecting a generally decentralized organizational process. The Executive Director of the Department is responsible for all administrative functions and implements policies established by the Mississippi State Board of Mental Health. Mr. Edwin C. LeGrand, III is currently the Executive Director of the Department of Mental Health. (*See Letter of Support in Appendix I*)

The Mississippi Department of Mental Health provides 15 mental health regions within the state. **As** shown on the ensuing map, mental health regions may include as many as eleven counties (Region 11) to as few as one county (Region 9). **As** proposed, **28** facilities operated through the Mississippi Department of Mental Health will participate in the pilot network (See Mental Health Center map on next page). (See letter of support in the Appendix).

Current connectivity for the Mental Health facilities consists of a range of capacity from 64K to 6Mb to support their existing applications. The pilot sites will be upgraded in capacity and will be provisioned with quality of service parameters to support the proposed applications (i.e. video, imaging, etc.) on the health information network.

Community Mental Health/Mental Retardation Center Service Areas

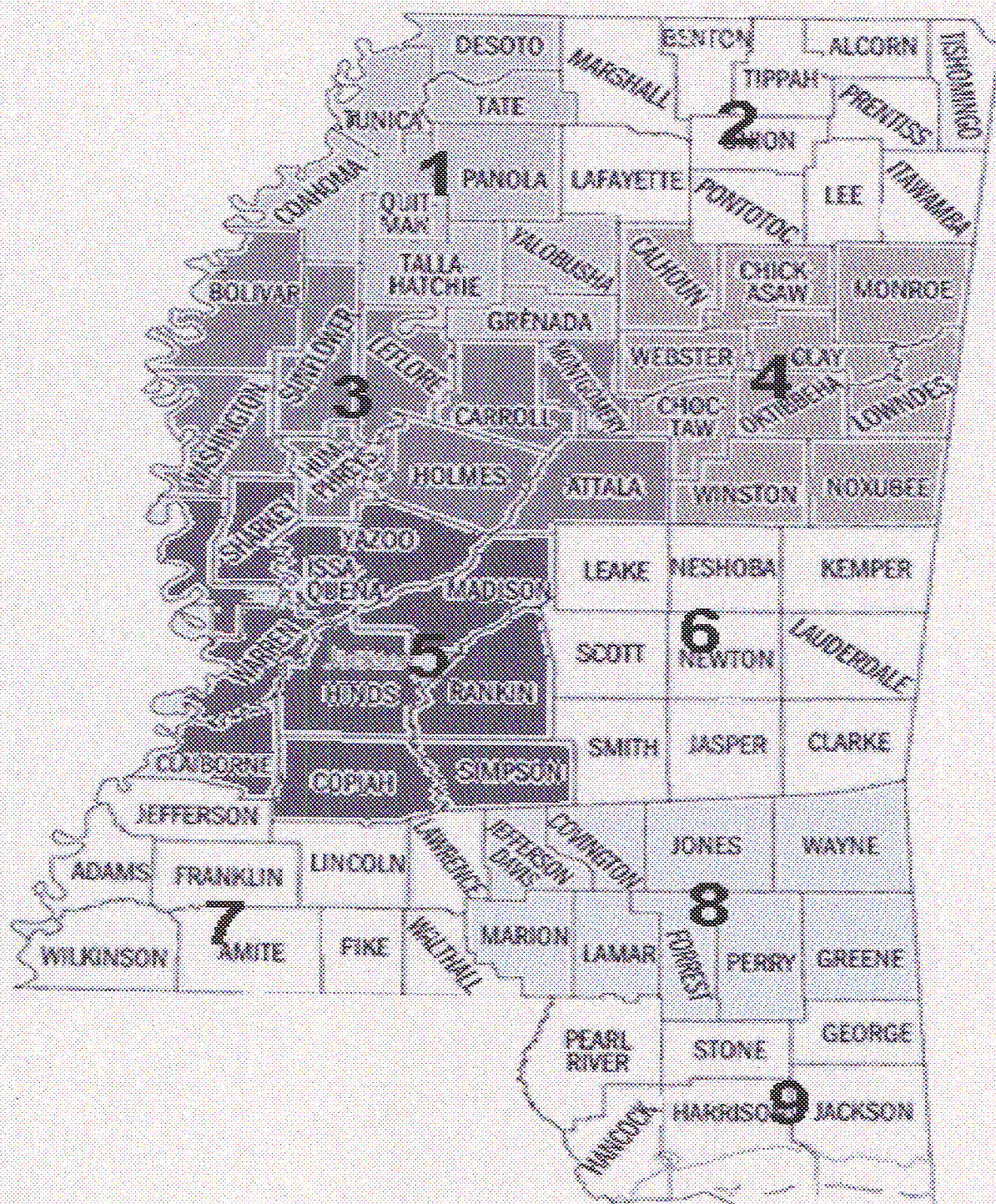


4. Mississippi State Department of Health (MSDH)

Mississippi has nine health districts providing a wide variety of services for the state's citizens. Nine health center facilities will participate in the pilot network and represent services provided throughout the state's health system (District 1 (Batesville); District 4 (Starkville); District 6 (Meridian); PIMS in Desoto and Holmes Countys; WICs in Natchez, Rolling Fork, Iuka, and Prentiss. (Descriptions of the services and facilities within each of the Health Districts are included in the Appendices). The health facilities provide a wide range of services such as early intervention, adolescent health, breast and cervical cancer screening, EPDST, Children's health insurance, and WIC nutritional program, and immunizations to name a few. The map on the ensuing map provides a view of the statewide impact of the participation of the Mississippi State Department of Health facilities within the pilot network. (See letter of support in the Appendix).

Current connectivity for the Department of Health facilities consists of a range of capacity from 64K to T1 to support their existing applications. The pilot sites will be upgraded in capacity and will be provisioned with quality of service parameters to support the proposed applications (i.e. video, imaging, etc.) on the health information network.

Map of Mississippi Department of Health Districts by County



5. Private Physician Offices

Mississippi's rurality affects not only the participating hospitals, community health centers, mental health and state health clinics, but also private healthcare providers who face similar barriers to HIT development as their colleagues in healthcare delivery. As proposed, private physician practices will participate in the pilot network.

As earlier data and HPSA maps have shown, our private physicians are geographically isolated in rural areas, stressed to provide quality care to a diverse socio-economically underserved population. The following table provides demographic data for the participating coverage areas of the private physician practices surrounding the rural network hospitals (coverage areas are shown on the rural/telemedicine county map).

Demographics of Counties for Private Physician Practices Affiliated with the Rural Hospitals

County	Total Population	% African Americans	% Native Americans	Median Family Income	Per Capita Income	% Below Poverty Level	% with Bachelor's Degree or Higher
Humphreys	11,206	71.5	0.1	\$23,719	\$17,422	38.2	11.6
Issaquena	2,274	62.7	0.1	\$23,913	\$11,860	33.2	7.1
Leake	20,940	37.4	4.6	\$32,147	\$19,933	23.3	11.6
Neshoba	28,684	19.3	13.8	\$33,439	\$23,921	21.0	11.4
Sharkey	6,540	69.3	0.2	\$26,786	\$16,082	38.3	12.6
Sunflower	34,369	69.8	0.1	\$29,144	\$15,537	30.0	12.0
Tallahatchie	14,903	59.4	0.1	\$26,509	\$17,185	32.2	10.9
Newton	22,165	14.9	3.7	\$29,995	\$23,466	16.9	13.2

Proposed Coverage Areas and Provider Types

Our vision for the future is to further expand connectivity across the continuum of healthcare providers within our state. Based upon the successes and lessons learned from this pilot FCC network project, we plan to ultimately connect the remaining rural hospitals in our state as well as increase connectivity for additional private physician practices that are so integral to the delivery of healthcare in our rural, geographically isolated areas.

Immediate Benefits/Impact of Pilot Network Applications

This FCC pilot project will facilitate the development and/or expansion of connectivity for a statewide HIT infrastructure that provides immediate benefits for rural/urban participating sites: 1) telemedicine, 2) telehealth, 3) patient education, and 4) hyperlinks to UMMC's knowledge base. The following section provides additional details concerning program applications that will be immediately accessible to participating sites over the broadband connectivity provided by the FCC project.

Telemedicine

As discussed in detail within the “**Experience in Developing and Managing TelEmergency Programs**” section, the University of Mississippi's TelEmergency (TE) program has a successful history of serving our rural healthcare communities. Utilizing specially trained NPs linked in real-time via TM with their collaborating physicians at the University of Mississippi Medical Center Adult Emergency Department (UMCAED), the TE program addresses the needs of rural emergency departments. As proposed, telemedicine sites will upgrade the bandwidth of the T1 lines in the current network from 1.5Mb to a bandwidth of 3.0Mb.

Telehealth - Distance Learning Educational Initiatives

Increasing access to telehealth education initiatives forms the foundation for overcoming barriers associated with provider isolation and lack of resources and facilitates the creation of an information sharing network. The overarching philosophical groundwork for the telehealth initiative is to create a community of lifelong learners throughout our state and the network established through this project. Learning within a community facilitates the acquisition of new knowledge, communication skills, problem-solving, teamwork, respect for others, and responsibility for independent study and reciprocal teaching.

Given both resource and time limitations for health care providers in rural communities there is a definite need to provide CE/CME credits that can be offered onsite. Connectivity will allow rural health care providers who work at the pilot network sites to access CE offerings in a timeframe that does not interrupt the workflow of their practices. Heretofore, healthcare providers lacking access to the connectivity provided within this proposal predominately had to close their practices and travel to distant sites for CE

training greatly impacting their ability to provide continuing care within their communities.

For example, in 2004, as part of the HRSA Bioterrorism Hospital Preparedness Program, the MSDH conducted a statewide EMS needs assessment. The 99 EMS agencies, located in 79 of Mississippi's 82 counties, serve 2,844,658 (2004 *estimate*) people distributed over 46,434 square miles. The survey found a significant need to improve the availability and delivery, but not necessarily content, of bioterrorism and disaster planning CE initiatives in Mississippi. During the past two years, only 32 of the 99 EMS agencies participated in bioterrorism educational training. Of these, 84% of the training programs were offered in either local classrooms or regional seminars. Only 16% of the voluntary educational programs utilized distance learning technologies. As a result, a total 337 EMS personnel from 39% of the EMS agencies (representing 27 counties) received educational training during this two year period. These 337 EMS providers represent less than 9% of the state's total EMS population (N=3,801). In fact, many of these providers serve multiple roles within the rural healthcare setting, e.g. working at the hospital, driving the ambulance, etc.

Additionally, as part of our AHRQ Rural Hospital Initiative, and complementary to HRSA's Bioterrorism Needs Assessment survey, we conducted a CE and Teamwork Needs Assessment survey at the eight rural hospital network in the Delta (shown in Table 8). Over 90% of the healthcare providers who responded indicated they would participate in CE offerings that were either provided over the internet or as on-site training seminars.

Expanding connectivity for our participating sites will enable practitioners to immediately access web-based continuing education offerings from the University Medical Center 's Continuing Education program as well as educational modules provided through the Information and Quality Healthcare organization (IQH).

In addition to providing access to web-based educational initiatives, IQH will coordinate information sharing through the concept of the Community of Practice Support Network (COPSN) for HIT. The COPSN will connect health care providers to a central community of practice structure that fosters a shared sense of community and vision for HIT adoption and implementation, as well as access to educational programming. This shared voice would further cultivate an open, participatory exchange of experiences and expertise among network participants solidifying an active commitment to HIT adoption and implementation across our state. (Please see additional details for the COPSN concept within the **Leadership Management Plan Section.**)

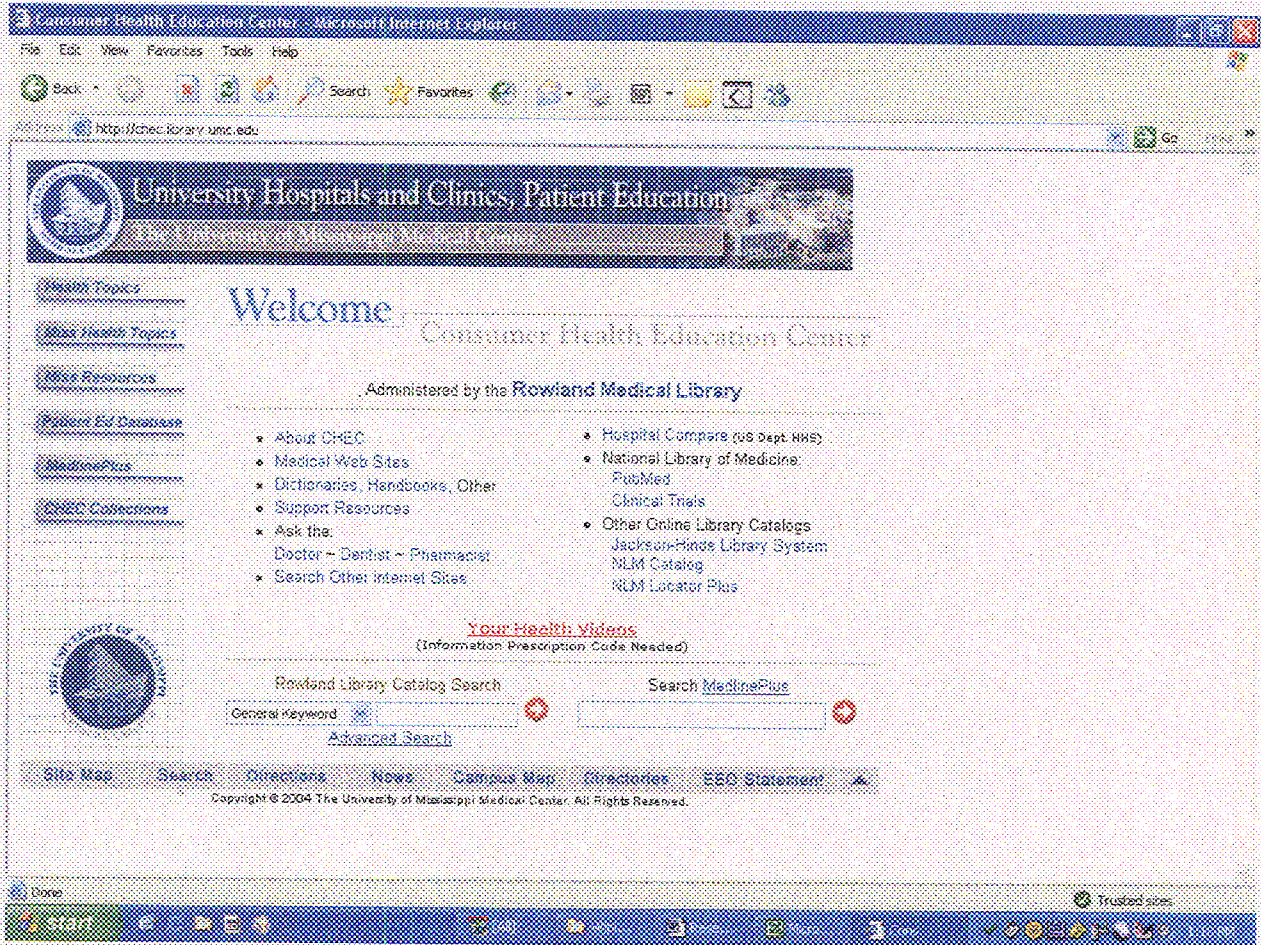
Patient Education

Expanded connectivity for patient education will be immediately available to healthcare providers and/or patients through access to the network sites is the Consumer Health Education Center (CHEC) of the University of MS Medical Center. CHEC is a collaborative community outreach project by the University of Mississippi Medical Center (UMC), University Hospital and Clinics (UHC), the Rowland Medical Library (RML), and the Jackson-Hinds Library System (JHLS). CHEC is funded by the National Network of Libraries of Medicine, Southeastern/Atlantic Region of the National Library of Medicine, under a \$40,000 sub-contract for an Access to Electronic Health Information for the Public project.

CHEC is a model interactive educational resource center designed to meet the health information needs of the patients, caregivers and the surrounding community. CHEC will increase the role of the health care providers in educating their patients by providing health information that the consumer is seeking, thus increasing compliance and helping patients become better partners in their own care. CHEC also allows health professionals and students to access information and actively engage in patient education activities in a preceptorship ambulatory setting.

The center has ready and easy access to a comprehensive collection of health information through numerous consumer health books, videos and pamphlets from different healthcare associations and organizations. The CHEC web site provides access to health information including numerous Mississippi health resources and Mississippi health topics to patients statewide. Professional staff and trained volunteers at the center provide expertise to assist the public and health professionals in meeting their health information needs.

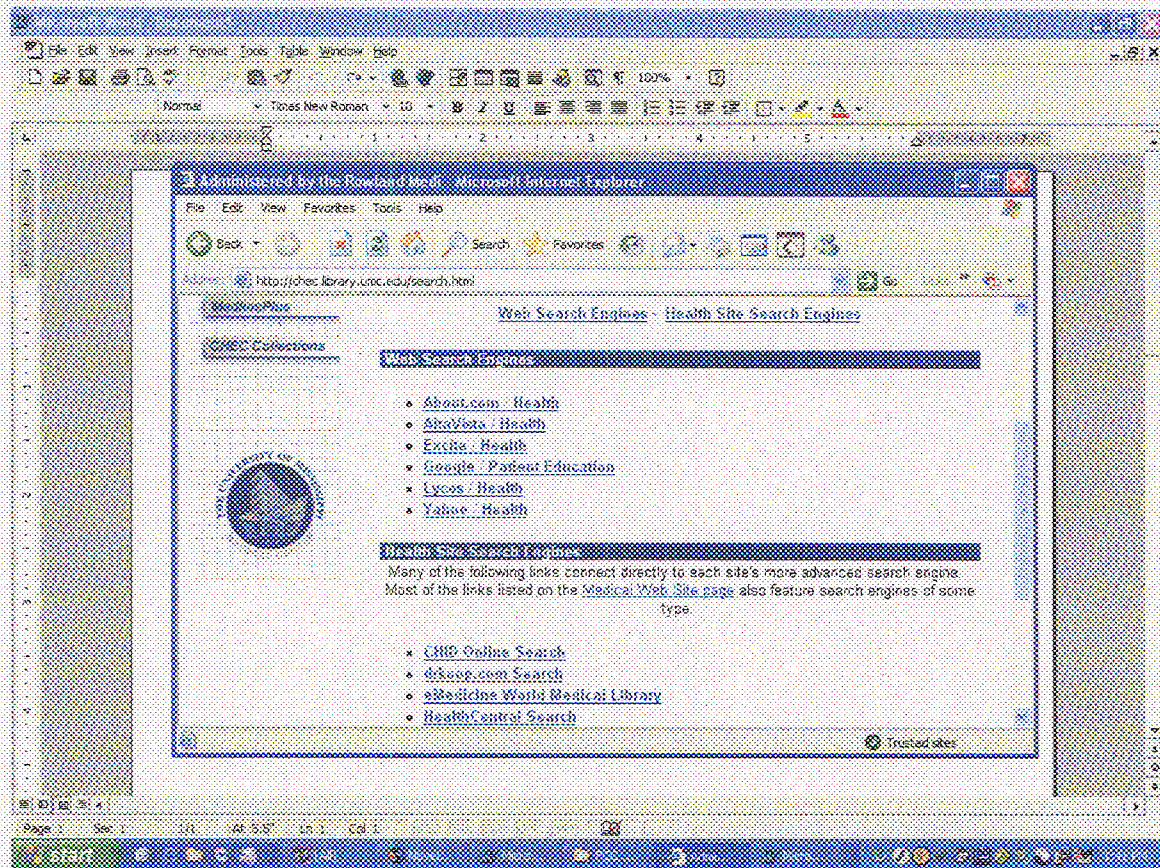
Below is a sample document showing the CHEC homepage. Visitors to the site can easily access additional patient educational materials and resources through the click of a "mouse".



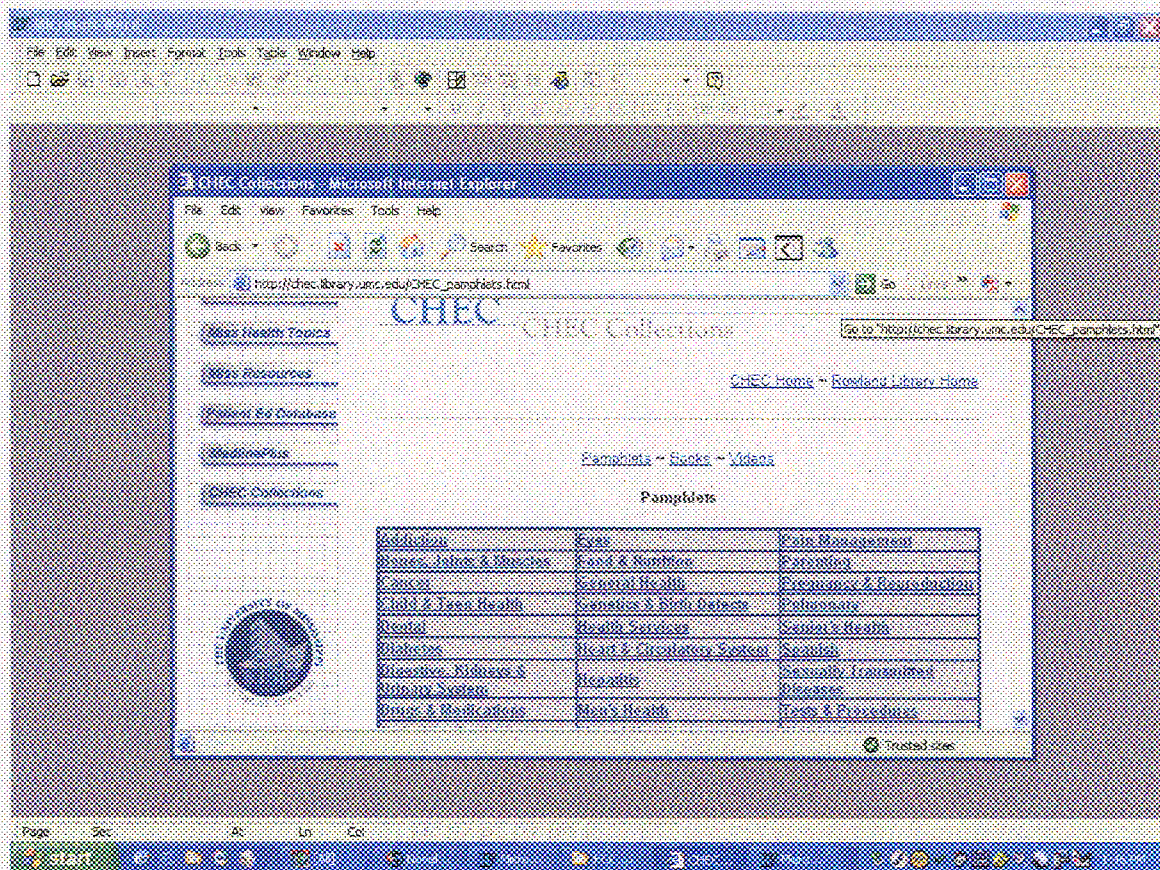
Access to CHEC enhances the role of health care providers in educating their patients and providing culturally appropriate educational materials for their use. The CHEC Web site (checlibrary.umm.edu) is a centralized source for authoritative electronic health information. A special feature on the CHEC Web site is the **UMC Patient Education Database** which offers access to full text materials produced by UHC health professionals and identification of other purchased information through a Web database administered by the Rowland Medical Library. Links to the CHEC Web site are also available on the JHLS, the Mississippi state library Web sites; with an additional link proposed by the IQH organization participating in this project.

Hyperlinks to the University of Mississippi Medical Center's Knowledge Base

As evidenced in the aforementioned paragraphs, the UMMC provides an accessible knowledge base for both providers and patients throughout the state. The CHEC site enables providers and/or patients access to "Ask the: Doctor-Dentist-Pharmacist", as well as links to the National Library of Medicine: PubMed and Clinical Trials. The "Ask the Doctor" site is staffed by clinical faculty at the medical center who address questions as they are posted to the website. The site also provides links to other search engines and medical web site listings as shown on the page below.



The CHEC site also provides downloadable information on a wide variety of topics as shown below.



An additional mechanism for patient education materials available for access to providers will be the Information and Quality Healthcare (IQH) website. The IQH will be coordinating the Community of Practice Support Network (COPSN) for HIT development within the state. The primary objective of the support network is to document, synthesize and disseminate best practice and technology knowledge for its members. Initially, the Community of Practice Support Network will be designed to include activities that will be beneficial to those just beginning the HIT pathway. The COPSN will be web-based and may provide educational offerings related to, but not limited to:

1. Where to Begin? To cover topics such as an overview of EHR functionalities, benefits and pitfalls and certifications and federal regulations, to name a few.
2. Resource, economic and needs analyses: What is it? How do I do it? How do I match needs analyses results to technological products?
3. Vendor products. How to match needs to products? How to evaluate a vendor's product?
4. CCHIT certification and IOM gold standard guidelines. What are they? Why are they important?

Proposed Applications

Beyond the immediate applications that such connectivity will afford our participating organizations, a number of additional future applications are proposed: 1) Electronic Health Records (EHR), 2) Syndromic Surveillance, and 3) Patient Portal (PHR).

Electronic Health Records: As discussed in the introductory section, HIT adoption in the state of Mississippi has been slowed by a number of barriers: lack of a centralized authority to oversee the implementation of an integrated, interoperable information network; lack of resources (trained personnel and cost of the initial investment and maintenance of technology); lack of standardized policies and procedures across healthcare organizations and providers, which lead to variations in business practices associated in the transfer of health information; lack of a standardized nomenclature, software and taxonomy between healthcare organizations (forms and format of information, data standards, terminology and exchange protocols); lack of knowledge of state and federal laws among direct care health providers; lack of state laws governing maintenance, access and transmission of electronic health; and lack of a secure integrated network/system connecting healthcare organizations and healthcare providers (interoperable framework).

Clearly, these barriers have impeded the development and implementation of EHRs within hospitals and physician practices within our state. Only 10 percent of the state's rural hospitals have adopted some form of an electronic information system. Nine of 82 hospitals statewide had adopted bar-coding technology, 22 have adopted teleradiology, and four utilize telemedicine. Additionally, one hospital in the state has adopted a CPOE system. The e-health initiative identified only 29 independent pockets of HIT activity in the state of Mississippi. However, this study found that none of the 29 projects were integrated across independent provider systems.

The creation of a statewide information infrastructure should be the first step in providing broad-based HIT integration within the state. Creating a blueprint for a statewide infrastructure is essential in Mississippi's effort to provide quality care to rural areas within the state.

A number of the HIT initiatives are unfolding for the sites participating in this FCC proposal that will move them forward into the development and implementation stage of an electronic health record. For example, the Mississippi Primary Health Care Association is developing a response to a proposal for "Electronic Health Record Implementation for Health Center Controlled Networks" through the Office of Health Information Technology: Division of State and Community Assistance. This opportunity will enable the community health centers to further develop HIT applications such as the EHR utilizing the connectivity infrastructure built through the FCC pilot network.

In addition, the UMMC's Center for Health Informatics and Patient Safety (CHIPS) is working with 2 of the 8 rural hospitals to develop and implement an in-patient EHR system. In concert with CHIPS' rural hospital EHR effort is a proposal to AHRQ for the development and implementation of an EHR in the ambulatory physician practices affiliated with the rural hospital network. As participating members of the FCC pilot

network, ongoing dialogue will facilitate the movement towards interoperability of proposed electronic health records across/between provider entities furthering President Bush's mandate to electronically connect health care providers in a meaningful way.

Applications such as an electronic health record will enable providers to better track performance measures that support efforts dedicated to the improvement of patient health outcomes, as well as measures that document the "health" of the organization through economic analysis of its return on investments (ROI). Again, **the ability to "connect" across the continuum of provider organizations is central to the success of our proposed network and lies at the heart of this FCC pilot project.**

Syndromic Surveillance: The devastation of recent Hurricanes Katrina and Rita has shown the importance of timely communications and coordinated partnerships between community, state, regional, and national entities. Effective response in times of disaster is heavily dependent on the efficient flow of information and the extraction of significant knowledge.

The 2005 Annual Patient Safety and Health Information Technology Conference: Making the Healthcare System Safer through Implementation and Innovation focused on the development and adoption of new technology that will help in creating high quality, safe healthcare systems. Both Michael Leavitt, Secretary of the United States Department of Health and David Brailer, National Healthcare Information Technology Coordinator, emphasized the importance of utilizing new software that will improve the sensitivity and specificity of detection algorithms; the need to tie these analyses into visual reporting systems (GIS), the need to collect and analyze data at state and regional levels in real-time, and the importance of academic, industry, and community-based non-profit collaboration. and other public health emergencies at early stages.

Syndromic surveillance through machine learning software can heighten the sensitivity of early warning systems for disease monitoring and predictive modeling of disease clustering. Machine learning is a field of computer science that uses intelligent algorithms to allow a computer to mimic the process of human learning. The machine learning algorithm allows the computer to learn dynamically from the data that resides in the data warehouse. The machine learning algorithms automatically detect and promote significant relationships between variables, without the need for human interaction. This allows for the processing of vast amounts of complex data quickly and easily. As a result, simulation models can incorporate concurrent training experience and early distant warning models incorporate knowledge about the strengths and weaknesses of field personnel.

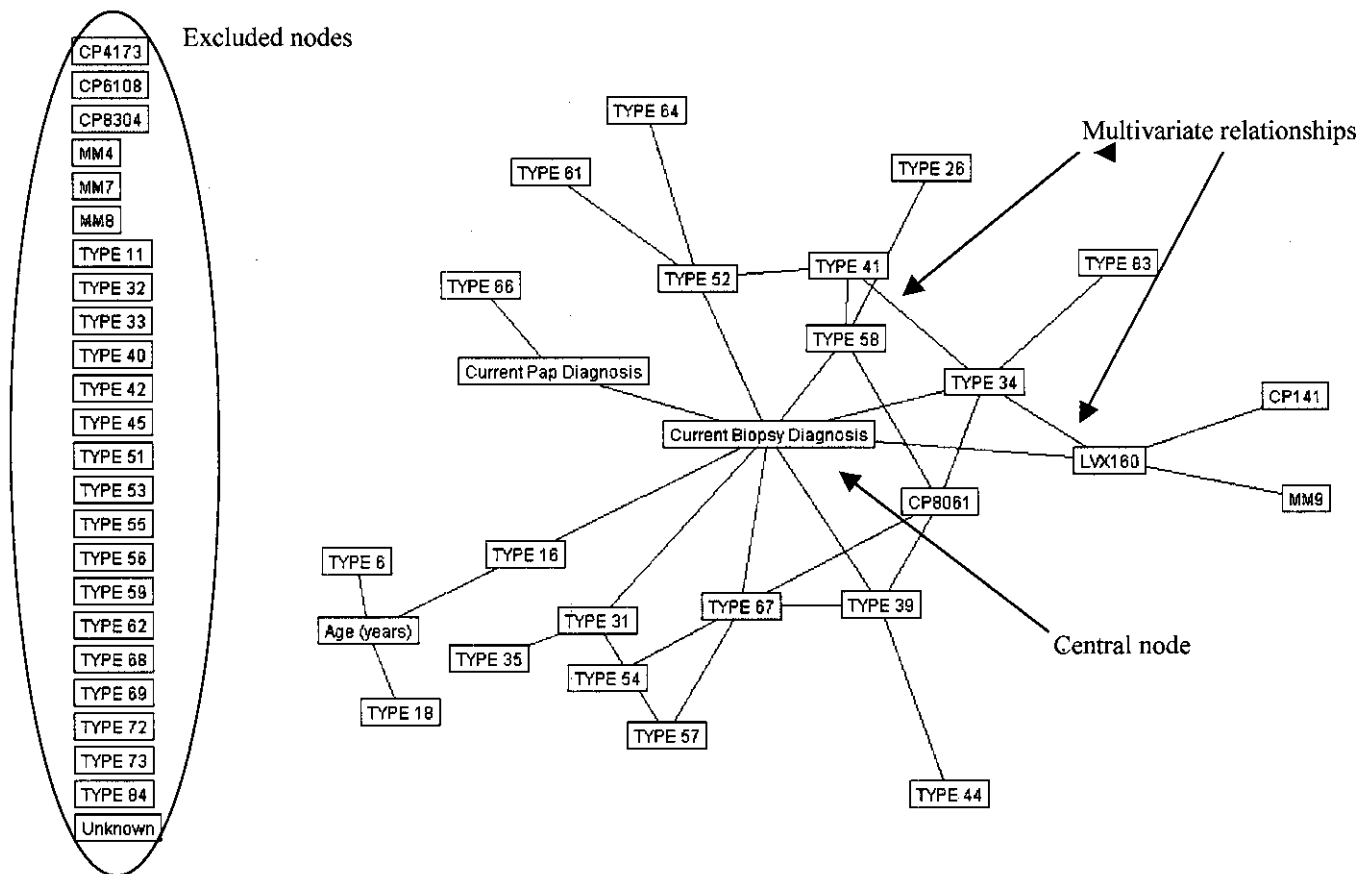
Bayesian networks are computationally efficient and can be interfaced with an automated prediction interface. This interface allows data from other systems to be input directly into a Bayesian network and return a prediction or predictions in real-time. As such, data gathered live at participating healthcare provider sites will generate real-time predictions for use by field care personnel and public health officials.

The future application of such modeling techniques as the Bayesian machine learning program described above will offer predictive models for syndromic surveillance

enabling public health officials real time notification of disease outbreaks and/or clustering of specific diseases across the state. Such an application would provide much needed communication linkages for rural health and public health providers and healthcare responders following natural and/or manmade disasters.

The following explanatory model utilizes Bayesian modeling to predict cervical cancer.

As an example, a cervical cancer risk stratification model was constructed using a data set consisting of 3,155 specimens collected over four years. Each specimen is a sample of cervical tissue from a PAP smear, and for each specimen, data includes PAP smear diagnosis, subsequent biopsy diagnosis, and HPV virotype for 47 types, consisting of low, medium, high, and unknown risk types. A machine learning algorithm was applied to this data set in target independent mode, and in this mode biopsy diagnosis was identified as the central node, purely through the strength of conditional dependence. The complex multivariate relationships between HPV types, as well as the exclusion of certain HPV types from the predictive network, can also be seen.



The data set used to create this model has a set of common biopsy diagnoses broken into non-cancerous (atypical, negative, reactive) and cancerous (CIN I, II, and III). The data set also includes common PAP diagnoses, and each virotype described as present or absent. The exemplar model is displayed in Figure 1 below. The variables in the model are represented by the labeled nodes (grey boxes). The conditional dependence

(statistically significant relationship) between the variables is represented by the edges (lines) of the model. In the model, the machine learning algorithms have identified diagnosis as a central node (i.e., diagnosis has a high number of conditional dependencies). The most significant predictors of diagnosis are those variables with direct conditional dependence. Variables with indirect conditional dependence are also predictive of diagnosis, but on a second order level.

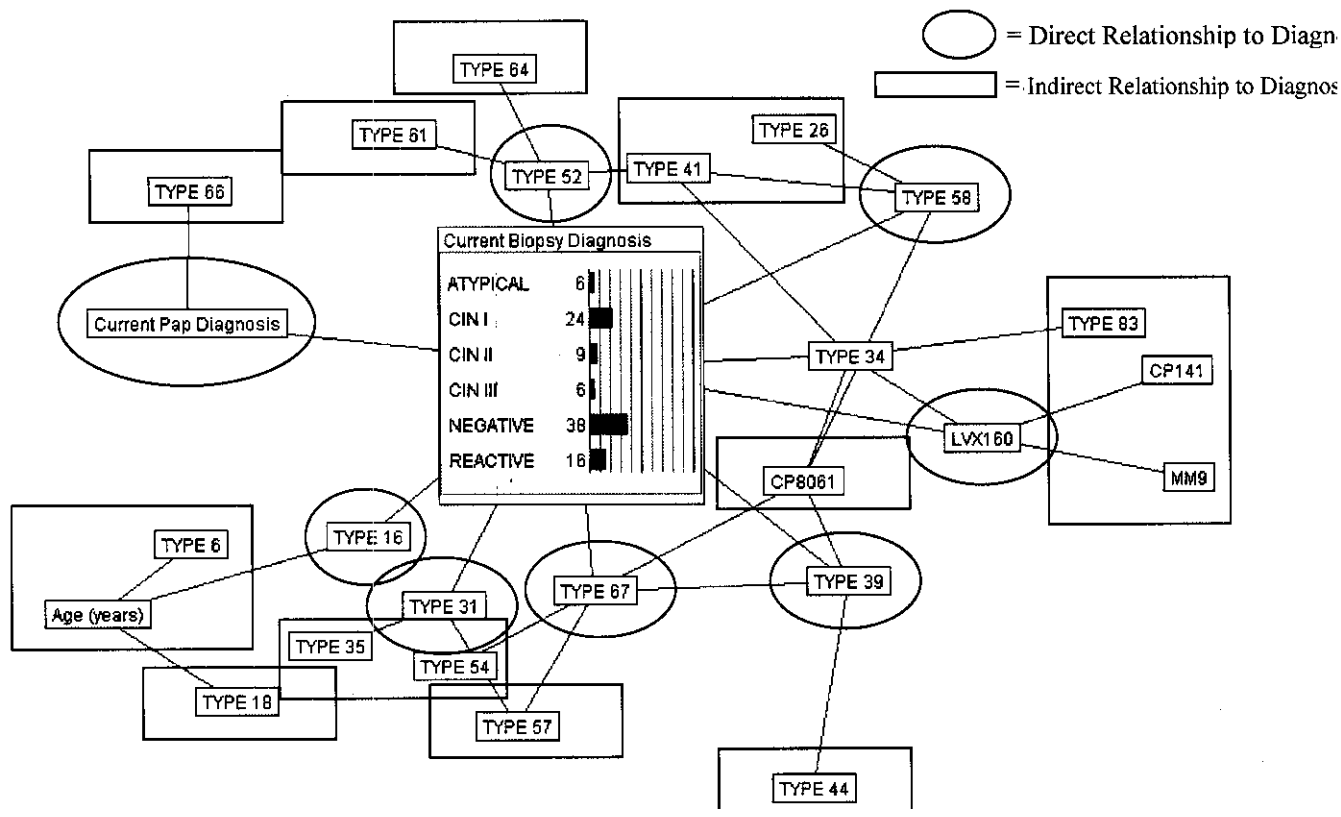


Figure 1: Exemplar Model: Risk Quantification Model for Cervical Cancer

In Figure 2, green variables indicate absence of virotype while red variables indicate presence of virotype. In addition, the preceding **PAP** diagnosis is also added as evidence. Given these known conditions, our training data set, and our model, we can calculate that this individual's probability of a Grade III invasive lesion is 28%, versus 6% in the reference population – a 4.5x increase in relative risk.

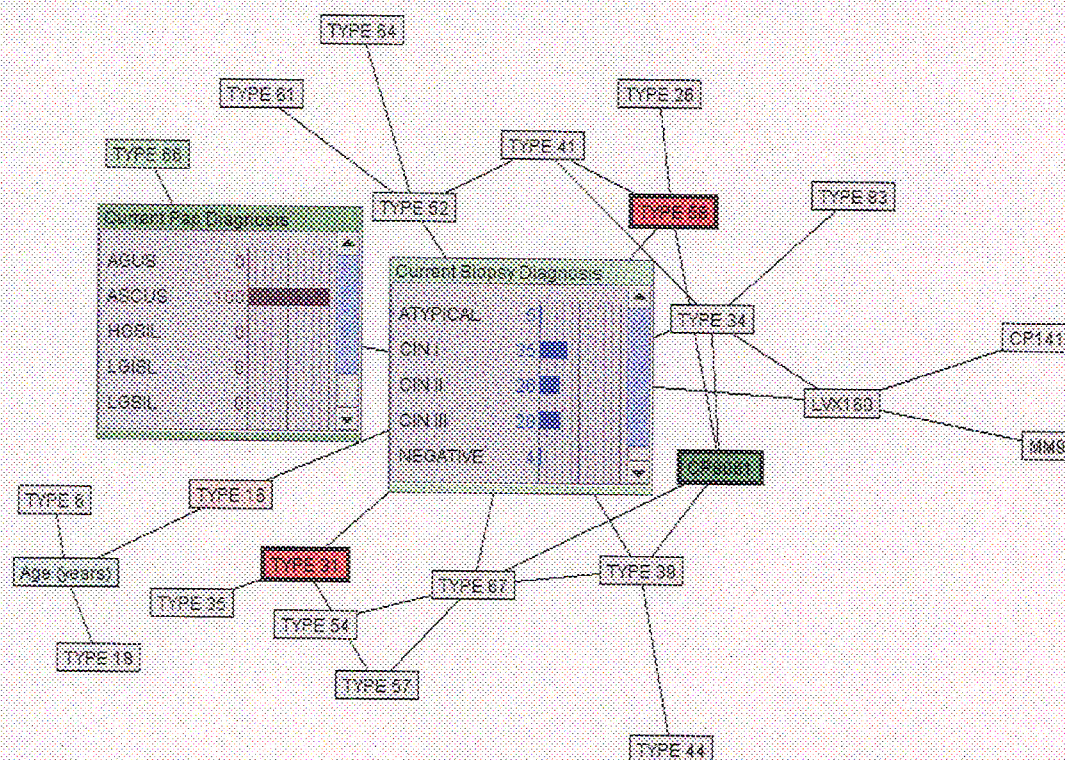


Figure 2: Probability of Invasive (Cancerous) Lesion Given Evidence

Using the same model, we can develop expected probabilities of disease given the presence or absence of multiple symptoms in combination. In Table 1 below, we have calculated the expected probability distribution of biopsy diagnosis for each combination of presence (+1, red) or absence (-1, green) of selected virotypes.

Probability of case	Drivers			Target					
	TYPE 39	TYPE 41	TYPE 58	Current Biopsy Diagnosis					
				ATYPICAL	CIN I	CIN II	CIN III	NEGATIVE	REACTIVE
95.883%	-1.0	-1.0	-1.0	6.3	23.4	8.9	5.7	39.4	16.4
1.911%	1.0	-1.0	-1.0	9.7	32.8	17.2	7.2	20.3	12.7
0.031%	-1.0	1.0	-1.0	6.2	23.9	8.9	6.0	38.8	16.2
0.0%	1.0	1.0	-1.0	9.4	32.7	16.7	7.5	20.9	12.7
1.976%	-1.0	-1.0	1.0	5.6	45.8	9.6	21.6	9.6	7.7
0.165%	1.0	-1.0	1.0	6.4	31.5	10.5	10.5	28.4	12.7
0.031%	-1.0	1.0	1.0	6.2	23.9	8.9	6.0	38.8	16.2
0.0%	1.0	1.0	1.0	9.4	32.7	16.7	7.5	20.9	12.7

As shown, the application of such Bayesian modeling offers additional insight into disease prediction and surveillance for healthcare providers.

Patient Portal (PHR)

It can be argued that the Personalized Health Record (PHR) is the key component in transforming our current healthcare system to a safer and more efficient consumer driven healthcare system. The PHR has become an integral part of the healthcare environment of the future. The PHR will provide consumers the information to:

- Knowledgeably discuss health issues with providers
- Transfer information to new providers
- Access information while traveling
- Record progress toward health related goals
- Document physician instructions, prescriptions, allergies...
- Track appointments and healthcare services

In order for the consumer to become empowered and play a part in personal healthcare decisions the PHR must be made available to all consumers not only those in large metropolitan areas. This program application will provide access into remote geographic areas in the state to help improve consumer education and to facilitate patient empowerment

Pilot Project's Leadership/Management Plan

The proposed FCC pilot project network will provide the foundation for much needed connectivity across our state. Hurricanes Katrina and Rita highlighted the importance of timely communications and coordinated partnerships between community, state, regional, and national entities. Effective response in times of disaster is heavily dependent on the efficient flow of information and the extraction of significant knowledge. Moreover, the current health status of our citizens highlights the need for the development of an HIT infrastructure that increases access to quality healthcare across the continuum of providers as well as expands access to education and support for geographically isolated providers. At the heart of the infrastructure development is connectivity.

This project's leadership team is multidisciplinary with expertise that spans the health continuum from clinicians to social scientists. The ensuing paragraphs highlight their participation in the pilot network proposal.

UMMC- Telemedicine

Robert Galli, M.D., chairman of the UMMC- Emergency Department, has been the central force behind the development and provision of telemedicine services through the UMMC A&ED. Dr. Galli joined the University of Mississippi Medical Center in the division of Emergency Medicine in October of 1994, initially as Residency Director of the Emergency Department Program. In December of 1999 Emergency Medicine became an academic department and Dr. Galli was named Chairman. The department has grown to include 30 Emergency Medicine residents and 13 full-time faculty. Clinical programs include AirCare Helicopter Ambulance Service, Medical Toxicology, Emergency Ultrasound, Sexual Assault Forensic Examination Program and Level 1 Trauma Center.

Dr. Galli joined the faculty of the School of Medicine at UCLA in 1986 as an Assistant Professor with research interests in Natural Disaster, Disaster Medicine, Toxicology, including Envenomizations and Spinal Injuries. He is the lead author of a textbook in spinal injuries, "Emergency Orthopedics – The Spine," Appleton Lang Publishers. Additionally, he was the Program Director of the UCLA Emergency Medicine Residency Program until leaving that institution in 1994 with the rank of Associate Professor.

UMMC- Center for Health Informatics and Patient Safety (CHIPS)

William J Rudman, Ph.D. is co-director of the Center for Health Informatics and Patient Safety (CHIPS), funded through the Mississippi Institute for Improvement of Geographic and Minority Health Disparities. Dr. Rudman currently serves as the deputy director of the Patient Safety Center. The Patient Safety Center is the first interdisciplinary center of excellence at the University of Mississippi. Dr. Rudman is a Professor in Diagnostic and Clinical Health Sciences, in the School of Health Related Professions and in the School of Medicine. Dr. Rudman has been involved in four patient safety or patient care grants

over the past three years: "Addressing Medication Use Variance Errors in Mississippi", "Building Teams for the Future of Patient Safety", "Using Technology to Identify Domestic Violence in Outpatient Clinics", and "Evaluating the System of Medication Error in an In-patient Setting". In addition to Dr. Rudman academic roles, Dr. Rudman has a long history of involvement in the implementation of widespread QI and PI initiatives. Since, 2000, Dr Rudman has served as the epidemiological and quality improvement consultant for Network 8. Network 8 is an End Stage Renal Disease (ESRD) network that covers the states of Mississippi, Alabama, and Tennessee. There are approximately 383 facilities that come under the purview of the Network 8 umbrella. Dr. Rudman's role as consultant included the design of patient data collection tools, design and implementation of research protocols for data collection, collection and analysis of data, development of evidence based QI initiatives and educational programs, and analysis of whether or not the QI initiatives were successful. He will serve as the contact PI for this proposed study.

C. Andrew Brown, MD, MPH, FACP, is a Professor of Medicine in the School of Medicine, and serves as Director of the University of Mississippi Medical Center (UMMC) Patient Safety Center, as well as co-director of the Center for Health Informatics and Patient Safety (CHIPS). Dr. Brown has served as co-investigator and principal investigator of clinical research trials since 1997. He served as Principal Investigator of the Atherosclerosis Risk In Communities (ARIC) Study and of the Genetic Determinants of High Blood Pressure Study (GENOA) funded by NIH/NHLBI. Current research includes: (1) Principal Investigator, Addressing Preventable Medication Use Variance In Mississippi funded by ARHQ; Principal Investigator, Preventable Medication Use Variance in Mississippi (Minority Supplement) funded by AHRQ; and Co-Investigator, Building Teams for the Future of Patient Safety funded by HRSA.

Susan Hart Hester, M.A., Ph.D. is a Professor in the Department of Family Medicine and is a member of the interdisciplinary team for the Patient Safety Center and serves as the Education Liaison for CHIPS, the Education and Awareness Core, and the Health Services Core of the Mississippi Institute for Improvement of Geographic and Minority Health Disparities. She has served as principal investigator and/or co-investigator on numerous grants and assists departmental project directors in monitoring budgetary and contractual issues related to project implementation.

The aforementioned team members have been working with representatives of the participating health agencies (Mississippi Department of Health, Mississippi Department of Mental Health) and Community Health Centers (Mississippi Primary Healthcare Association), telemedicine hospitals, and rural hospitals/private physician practices and other IT representatives to develop this proposal. The IT representatives from MPHCA, the MSDH, MDMH, and UMMC will continue to serve as vital members of the project team. Such participatory teamwork will be ongoing throughout the project timeline.

Timeline

The proposed anticipated start date for this pilot is July 1, 2007. The first two months will be used for a study of the pilot network sites. This study will enable us to further develop the connectivity needs of the participating sites and their service area needs. The estimated costs for this study are \$50,000.

Upon notification of selection:	Begin the Pilot Network Design Study Seek a waiver of the competitive bid process to allow use of e-rate eligible state master contracts (File form 465 using the state master contract as the bid response)
Regular Project Status meetings:	Conduct regular project status meeting to review issues, address next steps, and provide all resources with necessary deployment information.
Upon Waiver being Granted:	File Form 466 or 466-A with the USAC
Upon funding commitment:	Begin network deployment for pilot sites. Project 25 – 30 sites per month.
After services have begun:	Once services have begun at the rural health facilities file a Form 467 with USAC
After deployment and filing 467:	Develop Project Report to identify lessons learned and begin preparations for next funding year's proposal.

Sustainability

The sustainability of this project is directly related to the value of the program applications. Value will be added to this project by our ability to measure the quality of treatment, improved documentation, enhanced workflow, and increased revenue. For example, a study on the use of the EHR provided by the telemedicine network that already exists, demonstrated an average of a 35% increase in revenue from participating hospitals. Moreover, as noted in the text, the quality of treatment and documentation improved. The 35% increase in revenue will more than cover the expense of either the network upgrade or expansion.

Sustainability is always a question of concern after the end of any granting period. Our goal is to obtain future funding to support this network initiative. If we are unable to obtain future funding it is our belief that providers participating in the network will realize substantial benefits from participation. The various program applications we will provide will result in better treatment and increased revenue for participating entities.

Budget

The following spreadsheet identifies each of the participating network sites along with the proposed connectivity and estimated costs. Costs are also included for a pilot study of the network to be conducted during the first two months following the approval of the proposal.

APPENDIX 1

Letters of Support

University of Mississippi Medical Center

Mississippi Department of Mental Health

Mississippi Department of Health

Mississippi Primary Healthcare Association

Information and Quality Healthcare

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May 1, 2007

William Rudman, Ph.D.
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Jackson, MS 39216-4505

Dear Dr. Rudman:

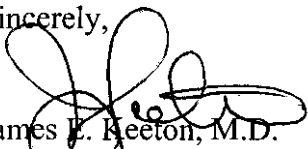
On behalf of the University of Mississippi Medical Center this letter documents support of your application to the FCC's Pilot Network Program (WC Docket number 02-60). The proposed pilot network will provide expanded connectivity across the continuum of healthcare providers and organizations. This connectivity will provide the vital building block for HIT infrastructure within our rural state.

Additionally, the proposed pilot network connectivity will further enable programmatic applications that will benefit our citizens as well as provide much needed access to continuing educational opportunities for our rural healthcare colleagues. The University of Mississippi Medical Center hosts a variety of web-based resources that providers can access through the enhanced connectivity fostered through the FCC pilot project.

The University of Mississippi Medical Center serves the healthcare needs of Mississippi's diverse citizenry. The expanded connectivity implemented through the FCC initiative will greatly impact our service to the state's rural under-served citizens.

Our institution strongly supports this pilot network program and will continue to work with you as the project unfolds. Please let me know if additional information is needed.

Sincerely,



James E. Keeton, M.D.
Associate Vice Chancellor
for Clinical Affairs

JEK:cke